

MIL-H-2987B

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 SUPERSEDING  
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## MILITARY SPECIFICATION

## HIDERS, FLASH AND SUPPRESSORS, FLASH

This specification is approved for use by all Departments and Agencies of the Department of Defense.

## 1. SCOPE

\* 1.1 This specification covers cone type flash hidere and slotted type flash suppressors used respectively for concealing or reducing flash during firing of weapons.

## 2. APPLICABLE DOCUMENTS

2.1 The following documents of the issue in effect on date of invitation for bids or request for proposal, form a part of the specification to the extent specified herein.

## SPECIFICATIONS

<u>Military</u> MIL-W-13855	-	Weapons, Small Arms and Aircraft Armament Subsystems, General Specification for
MIL-P-14232	-	Parts, Equipment and Tools for Army Materiel, Packaging and Packing of
MIL-I-45607	-	Inspection Equipment, Acquisition, Maintenance and Disposition of

## STANDARDS

<u>Federal</u> Fed. Std. No. 356	-	Commercial Packaging of Supplies and Equipment
<u>Military</u> MIL-STD-105	-	Sampling Procedures and Tables for Inspection by Attributes
MIL-STD-109	-	Quality Assurance Terms and Definitions

FSC 1005

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## DRAWINGS

Rock Island Arsenal

C7162072	-	Hider, Flash Cal. .50, Heavy Barrel
C7162966	-	Bearing, Flash Hider and Bipod
C7162300	-	Hider, Flash, Cal. .30, M6
C7162303	-	Hider, Flash, Cal. .30, M7
C7229909	-	Hider, Flash, 20mm, M4 and Nut
C7265628	-	Hider, Assembly Flash: M9
F7266434	-	Hider, Flash, (T37)
D7269034	-	Suppressor, Flash
F7791053	-	Suppressor, Flash
D7793165	-	Suppressor, Flash
D8448576	-	Suppressor, Flash
FL1013376	-	Suppressor, Flash (Weldment)

## PUBLICATIONS

Rock Island Arsenal

QE-G-DL7162072	-	Quality Engineering Data List for Hider, Flash, Cal. .50, Heavy Barrel
QE-G-DL7162966	-	Quality Engineering Data List for Bearing, Flash Hider and Bipod
QE-G-DL7162300	-	Quality Engineering Data List for Hider, Flash Cal. .30, M6
QE-G-DL7162303	-	Quality Engineering Data List for Hider, Flash Cal. .30, M7
QE-G-DL7266434	-	Quality Engineering Data List for Hider, Flash, (T37)
QE-G-DL7269034	-	Quality Engineering Data List for Suppressor, Flash
QE-G-DL7791053	-	Quality Engineering Data List for Suppressor, Flash
QE-G-DL1013376	--	Quality Engineering Data List for Suppressor, Flash, (Weldment)
P7162072	-	Packaging Data Sheet for Hider, Flash Cal. .50, Heavy Barrel
P7162966	-	Packaging Data Sheet for Bearing, Flash Hider and Bipod
P7162300	-	Packaging Data Sheet for Hider, Flash, Cal. .30, M6
P7162303	-	Packaging Data Sheet for Hider, Flash, Cal. .30, M7
P7265628	-	Packaging Data Sheet for Hider, Assembly Flash: M9
P7266434	-	Packaging Data Sheet for Hider, Flash (T37)
P7269034	-	Packaging Data Sheet for Suppressor, Flash

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P7791053	-	Packaging Data Sheet for Suppressor, Flash
P7793165	-	Packaging Data Sheet for Suppressor, Flash
F8448576	-	Packaging Data Sheet for Suppressor, Flash
F11013376	-	Packaging Data Sheet for Suppressor, Flash (Weldment)

2.2 Other publications. The following document forms a part of this specification to the extent specified herein. Unless otherwise indicated, the issue in effect on date of invitation for bids or request for proposal shall apply.

## WELDING HANDBOOK

(Application for copies should be addressed to the American Welding Society, 2501 N.W. 7th Street, Miami, Florida 33125).

## 3. REQUIREMENTS

\* 3.1 First article. Requirements for submission of first article shall be as specified in the contract (see 6.1). Unless otherwise specified (see 6.1), the first article shall include the pilot pack (see 5.1).

3.2 Materials, construction and design. The flash hider, or flash suppressors, shall conform to the material, construction and design requirements specified herein, on Drawing C7162072, C7162966, C7162300, C7162303, C7229909, C7265628, F7266434, D7269034, F7791053, D7793165, D8 48576, F11013376, as applicable and in MIL-W-13855.

3.2.1 Staking. Staking of the flash hider, or flash suppressor, shall be in accordance with the applicable drawing. There shall be no looseness of parts.

\* 3.2.2 Electron beam and heliarc welding. The electron beam and heliarc welding shall be in accordance with the Welding Handbook of the American Welding Society.

\* 3.3 Performance characteristics.

\* 3.3.1 Attachment to weapon. The flash hider or flash suppressor, shall readily attach to, and be securely retained on the applicable weapon.

3.4 Marking. The flash hider, or flash suppressor, shall be marked in accordance with MIL-W-13855.

3.5 Workmanship. The workmanship shall be in accordance with MIL-W-13855.

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\* 4. QUALITY ASSURANCE PROVISIONS

4.1 Responsibility for inspection. Unless otherwise specified in the contract or purchase order, the supplier is responsible for the performance of all inspection requirements as specified herein. Except as otherwise specified in the contract or order, the supplier may use his own or any other facilities suitable for the performance of the inspection requirements specified herein, unless disapproved by the Government. The Government reserves the right to perform any of the inspections set forth in the specifications where such inspections are deemed necessary to assure supplies and service conform to prescribed requirements.

4.1.1 The contractor shall perform as a minimum, inspections in accordance with the specification, quality assurance provisions and the contract. These minimum inspections shall not be construed as relieving the contractor of his responsibilities under terms of the contract to furnish the Government with items fully in conformance with the requirements of the contract, drawings and specifications.

4.2 Quality assurance terms and definitions. Quality assurance terms and definitions used herein are in accordance with MIL-STD-109.

4.3 Classification of inspection. The inspection requirements specified herein are classified as follows:

- a. First article inspection (see 4.4)
- b. Quality conformance inspection (see 4.5)

4.4 First article inspection. The first article (initial production unit(s)) shall be submitted for inspection in accordance with the contract (see 6.1). The first article shall be representative of the production processes to be used during quantity production. The first article shall be subjected to the quality conformance inspection specified herein, and other such inspection as necessary to determine that all requirements of the contract have been met.

4.5 Quality conformance inspection.

4.5.1 Inspection lot. Unless otherwise specified (see 6.1), the formation, size and presentation of inspection lots shall be in accordance with MIL-STD-105 and MIL-W-13855. Flash hiders or flash suppressors shall be assembled from component parts that have met all inspection requirements specified herein.

4.5.2 Examination.

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4.5.2.1 Component parts and concurrent repair parts. Examination of component parts and concurrent repair parts shall be as specified in the contract (see 6.1). Examination of these parts shall be prior to assembly into the end item or acceptance as repair parts.

4.5.2.2 Flash hidere or flash suppressors. Samples of flash hidere or flash suppressors shall be examined as specified in Table I. The examination provision should be applied at the earliest practical point in manufacture at which it is feasible to inspect for acceptance without risk of change in the characteristic by subsequent operations. Reinspections of these characteristics on the completed product is not required provided assurance exists that the characteristic has not been changed, degraded or damaged by subsequent manufacturing, assembly or handling and that adequate inspection records are maintained. Flash hidere or flash suppressors failing to meet the requirements shall be rejected.

4.5.2.2.1 Inspection methods. The following provisions shall be applicable to the prescribed inspection methods. Requests for a method other than that specified shall be submitted for Government approval (see e below):

- a. Where "Visual" is specified as the inspection method for protective coating, the coating shall be visually examined for completeness, uniformity in appearance and color, and for freedom from pits, corrosion, scratches, and worn or bare spots.
- b. Where "Visual" is specified as the inspection method for assemblies, the assembly shall be visually and manually examined for completeness, security, and conformance to specified requirement.
- c. Where "SMTE" (Standard Measuring and Test Equipment) is specified as the method of inspection, the contractor may use any type of industry-developed, commercially available, multi-usage equipment or special equipment approved by the Government.
- d. When Government furnished Acceptance Inspection and Test Equipment, "Gage", is specified as the method of inspection in the contract or on the Data Lists, the contractor shall use inspection equipment fabricated in accordance with the Government drawing referenced.
- e. Alternative inspection methods and inspection equipment may be used by the contractor when such methods and equipment equal or exceed the specified accuracy and provide, as a minimum, the quality assurance required in the contractual documents. Prior to applying such alternative inspection methods and inspection equipment, the contractor shall describe them in a written proposal and shall demonstrate for the approval of the Procuring Contracting Officer (PCO) that their effectiveness is equal to or better than the contractual quality assurance method or equipment.

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TABLE I

<u>Categories of Characteristics</u>	<u>AQL</u>	<u>Inspection Method</u>
Material		Certification (see 4.5.3)
Drawing Notes		Certification (see 4.5.3)
Welding		Certification (see 4.5.3)
Construction and Design	1.5	Visual
Attachment to Weapon	1.5	Visual, Manual
Hardness Requirements	1.5	SMTE
Dimensions	1.5	Gage (see applicable QE-G-DL)
Protective Coating Requirements	4.0	Visual
Marking	4.0	Visual
Workmanship	4.0	Visual

4.5.3 Certification. Unless otherwise specified, the contractor shall furnish the Government representative with certified statements that each inspection lot conforms to the materials and processes specified on the applicable drawings and specifications.

4.5.4 Packaging examination and testing. Unless otherwise specified (see 6.1), the packaging, marking examination and testing shall be in accordance with MIL-P-14232.

#### 4.5.5 Inspection equipment.

4.5.5.1 Acquisition, calibration, maintenance and disposition. Unless otherwise specified (see 6.1), responsibility for acquisition, calibration, maintenance and disposition of acceptance inspection and test equipment prescribed on Quality Engineering Data List QE-G-DL7162072, QE-G-DL7162966, QE-G-DL7162300, QE-G-DL7162303, QE-G-DL7266434, QE-G-DL7269034, QE-G-DL7791053 or QE-G-DL11013376, as applicable, and for all other inspection equipment required by applicable specifications, shall be in accordance with MIL-I-45607.

4.5.5.2 Accuracy of standard measuring equipment. When commercial and modified commercial inspection and test equipment is used, it must be capable of repetitive measurements to an accuracy of ten percent of the total tolerance of the characteristic being inspected

### 5. PREPARATION FOR DELIVERY

#### 5.1 Army.

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- \* 5.1.1 Pilot pack. A pilot pack shall consist of a complete flash hider, or flash suppressor, packaged in accordance with the Packaging Data Sheet P7162072, P7162966, P7162300, P7162303, P7265628, P7266434, P7269034, P7791053, P7793165, P8448576, P11013376 as applicable, for the level of protection specified in the contract (see 6.1), packed level B and forwarded as specified in 3.1.
- \* 5.1.2 Levels A and B. Preservation, packaging, packing and marking shall be in accordance with Packaging Data Sheet P7162072, P7162966, P7162300, P7162303, P7265628, P7266434, P7269034, P7791053, P7793165, P8448576, P11013376 as applicable, for the level of protection specified in the contract (see 6.1).
- \* 5.1.3 Commercial. Preservation, packaging, packing and marking shall be in accordance with Fed. Std. No. 356.
- \* 5.1.4 Repair parts. Repair parts shall be preserved, packaged, packed and marked in accordance with the applicable Packaging Data Sheet or other requirements for the level of protection specified in the contract (see 6.1).
- \* 5.2 Navy.
- \* 5.2.1 Preservation, packaging, packing and marking. The requirements for preservation, packaging, packing and marking for the M4, 20mm NSN 1005-00-722-9909 shall be as specified in the contract (see 6.1).

## 6. NOTES

6.1 Ordering data. Procurement documents should specify the following:

- a. Title, number and date of this specification.
- b. Lists of drawings and specifications pertinent to the flash hider, or flash suppressor, showing applicable revision dates.
- c. Shipping instructions for first article and pilot pack (see 3.1, 4.4 and 5.1).
- d. Inspection lot if different (see 4.5.1).
- e. Examination criteria for components (see 4.5.2.1).
- f. QE-G-DL Data Lists pertinent to the flash hidere, or flash suppressor showing applicable revision dates (see 4.5.5.1).
- g. Packaging examination and testing, if different (see 4.5.4).
- h. List of acceptance inspection equipment to be furnished the contractor (see 4.5.5.1) and responsibilities for other Government property to be furnished the contractor.
- i. Selection of applicable levels of packaging and packing (see 5.1.1, 5.1.2 and 5.1.3).

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- j. Packaging instructions for repair parts (see 5.1.4).
- k. Packaging, preservation, packing and marking for Navy, as required (see 5.2).

\* 6.5 The margins of this specification are marked with an asterisk to indicate where changes (additions, modifications, corrections, deletions) from the previous issue were made. This was done as a convenience only and the Government assumes no liability whatsoever for any inaccuracies in these notations. Bidders and contractors are cautioned to evaluate the requirements of this document based on the entire content irrespective of the marginal notations and relationship to the last previous issue.

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